

Language as Carrier of Consciousness

Inger Bierschenk



Lund University
Sweden

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Inger Bierschenk

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Paradisgatan 5

Lund University

S-223 50 Lund, Sweden

Coordinator: Bernhard Bierschenk

Department of Psychology

Abstract

The purpose of the discussion in this article is to give an evolutionary background to a method developed for the analysis of language seen as expression of intention and morality. The method is named "Perspective Text Analysis". This name indicates that beyond the physical dimension of a text there is a metaphysical one, which can be discovered by a formal mechanism. The cue component of this mechanism is the Agent, which controls the perspective of the text. It has developed as a consequence of the shift from object (culture) as governor to mentality as governor of human action. It is argued in this article that controlling Agent in a text analysis is the only possible way of controlling consciousness. The main point put forward is that consciousness is bound to syntax. It follows that lexically carried linguistic information cannot be used for intentionally based text analyses.

The discussion in this article is based on the conception that naturally produced human language is the only instrument for developing and transferring consciousness. The term consciousness is used to designate the process which comes about in the cooperation between culture and mentality. These two dimensions are carried over by language. The cultural dimension refers to the ritualized patterns whereas the mental dimension refers to the purposeful order creating activity of the cultural behaviour. From a linguistic point of view, one could say that the cultural dimension is carried over by the lexicon. All verbal utterances whose purposefulness are being freezed and conserved will loose their mental sense. The mental dimension is carried over by the syntax. Not until syntax may be discerned will it be possible to distinguish mentality from culture.

Consciousness is also a matter of control. By studying language as a function of culture and mentality it is possible to discover the point of reference, that is the human standpoint expressed in an utterance, in order to determine the degree of consciousness (steering). Language reflects three phases of consciousness: (1) external control, (2) internal control and (3) mental control. The steering mechanism of phase one is the objectively given, the way it is ecologically or socially stipulated. In phase two the point of reference has been made subjective and the steering mechanism builds on sensations (or emotions). In phase three the mentally bound steering mechanism is self-reference. Here, the point of reference is self-governing, which implies the conception of the subject as responsible agent. A high degree of externalization corresponds to a low degree of consciousness. Although the three control phases may be regarded as historically developed, this does not mean that language of today operates solely within the latest phase. Language namely carries the possibility of activating all three depending on both the situational context and individual differentiation.

Finally, consciousness may be expressed through the perspectivation. The term perspective refers to a language producer's conduct vis-a-vis the phenomenon verbally expressed. The perspective thus is the product of syntactic differentiation (or spatialization) and the development of control. It should be clear that perspective in this sense is a matter of inner quality, which may be developed and brought about only simultaneously with a conception of time.

The Objective Imperative

Ecological Control

Primary to the survival of humans is their ability to ecological observation. The first verbal expressions referred to simple external observations. The "mentality" was steered by a leader and consisted of a warning, which developed into some ritual behaviour and formalized into language. To be sure, a call of warning indicates an intention, which is the prerequisite for building a communication repertoire. Jaynes (1976) suggests that the beginning of such a repertoire was a modifier indicating ecological control by differentiated suffixes. When there was a need for behaviour of a more controlled kind, this need may have developed commands out of the modifiers, as for example an instruction like "sharper" given to a hunter sharpening his flint axe. After certain basic behaviours had been formed and these two types of expressions had been stabilized, names of the environment became the germ of civilization. By the age of the rock-paintings (25000 -15000 B.C.) there is archeological evidence that the frontal lobe grew rapidly, paving the way for the language areas of the brain to develop.

The medium by which a civilization could evolve was the audible expression. The non-conscious man had to continually repeat (memorize) the instruction heard to be able to do work, despite the fact that he did not have any will or conception of time. But by the adaptation of the brain to a "bicameral" system (Jaynes' term) a part of the brain could be used for hallucinating the sounds of speech of the leader and for preserving them.

Between an ecological phenomenon and its expression of control there is the least possible spatiality. It may be illustrated as in Figure 1. Anybody unfamiliar with the culture in which the word "marduk" exists cannot understand the word in another sense than "mountain" when confronted with "marduk" uttered in this very specific ecological context. This is an example of the cultural (lexical) interpretation of word sense. If, however, the mountain also symbolizes a god, the name "Marduk" in the same ecological context becomes something mental and may be interpreted in its dynamical sense, as for example "Marduk!" meaning warning or invocation. In being familiar with the rituals and habitual behaviours typical of a certain ecological context the intention



marduk

(o)

Figure 1. Object governing: Lexicological control

of a certain expression can be known. But if the control, as in this case, is totally external, its expression functions like an object without perspective, which requires our presence at the moment of utterance in order to function as linguistically meaningful.

Social Control

The art of living in cities of such dimensions that not every person knew every other formed the basis for the communication system we call language. The forming of groups and social control made necessary a communication capable of creating order among the group members. Jaynes (1976, p. 135) suggests that this development began between 10000 and 8000 B.C. A name functions as an individual reference, necessary for talking about somebody in his absence. It was also the headman's instrument for controlling the group members without relying on eye contact. The intention memorized was associated with a certain person whose voice was recognized. The recall of inner voices in order to steer patterns of behaviour is termed hallucination today, often regarded as a state of mental illness (schizophrenia).

After a leader had died, his voice was still heard. In many cultures there are still the custom to bury the dead person twice, the second time when his voice had become silent. The death of a leader created the myth of a living god and his grave was the start of the building of temples. This religious custom can be traced back to about 3000 B.C.

Typical of this age should have been individuals characterized by low consciousness and thus low stress tolerance, which means that they had a low threshold to hallucinating behaviour. The period was marked by frequent hallucination of divine voices. The societies were organizations of leaders (god-kings) and led (collective), within which the human beings behaved like automates, freed from the compulsion of having to make choices. The period, therefore, is called the golden age. It is not too long ago, because still in our age, movements have been established whose purpose is to restore the mental states of non-consciousness.

The most interesting change in mentality through the establishment of the social systems is the marker of the forcible language by the command (not the instruction). The social control makes possible the emergence of categories of behaviour in the human mind. However, the difference between verb and name (nominal) was not as distinct as it became later on. A nominally oriented language may be regarded as premature, since the distinction between a lexical and a syntactic dimension is not salient. The first written characters caved during this period were meant to depict the audible signals, the talk of the gods, in cuneiform. No doubt, this was a cultural achievement. Cuneiform is usually not referred to as a language, which is probably due to its low spatiality, for the characters are tightly connected to the culture of a particular city and had the function of signalling collective hallucination of voices at public places. The objective phenomenon was the execution itself.

For the paradigmatic description of the object-governed culture in its social function, the well-known depiction of Hammurabi of Mesopotamia (about 1750 B.C.) hallucinating commands from Marduk, the city god of Babylon, will be used. Hammurabi was the steward-king of Marduk, so all he did in the discharge of his official duties was mentally steered from the god. Thus culture and mentality constituted a unity, the objectively given and the unquestionable god was the inner voice, which had as its consequence that Hammurabi could not distinguish himself from Marduk. This absence of spatiality is illustrated in Figure 2 by a command, whose initiator and executor are not separated in the linguistic form. The command "listen" has the function of signalling a behaviour, that is being a mediator between the command and its goal. Thus "listen" would easily

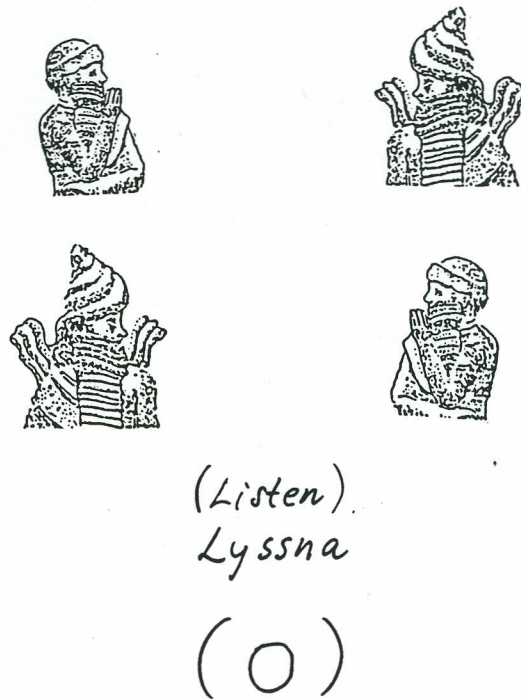
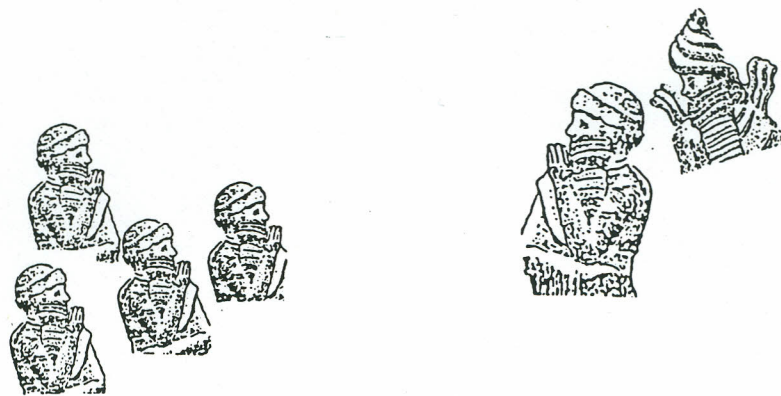


Figure 2. Object governing: Implicit point of reference

be regarded as a name of the phenomenon, that is, "obedience" (listen = obey from ob+audire). The infinitive mood belongs to the non-conscious level, where an "I" or a conception of time is missing. It is not difficult to imagine that the common conception of an infinitive form emanates from the imagination of a behaviour as a reachable goal. It seems plausible that verbs have been generated out of nouns, as for example "to be" whose etymological sense is "life" (Jaynes, 1976, p. 51). With this way of thinking, a verb of state like "be" may be conceived as active, since it signals something living (compare Panini's description of sanskrit according to Rocher, 1964).

The amalgamation of culture and mentality described recognizes only the objectively given and requires no perspective for its functioning. In the depicted relationship between Hammurabi and Marduk, the left position of Hammurabi should be regarded as symbolizing the cultural dimension and the right position of Marduk as symbolizing the steering mentality. The hypnotic relationship existing between the two leaders gives a possible etymology to the word "understand" (Old English "forstanden") (Bierschenk, 1986), that is, a purposeful listening to a force outside one's own control. The relationship between steward-king and god becomes paradigmatically discernible when others than the



(Obey)

Lyd Hammurabi



Figure 3. Object governing: Subject control

leading figures answered to their voices. It then became necessary to bring order among the gods and to subordinate the people to this order. Such a hierarchy is the origin of priesthood. The relationship may be illustrated by the steward-king taking the position of the god (Figure 3). From now on it is he himself who has the executive power, who is the commander of mentality, instead of being mediator. He has separated himself from his subjects, who constitute the point of reference. This mentality would preserve the non-consciousness of the people. The expression functions as social control which is still externally defined. So, no complete (conscious) syntax exists. The statements with the point of departure in the objectively given were predicates consisting of acts or properties to which the subjects were subordinated. The predicates became the source of laws, as for example "the people shall listen to Hammurabi and obey his commands". The symbol S in Figure 3 stands for subject in the concrete Latin sense of "subiectum". It underlines the culturally passive conduct of the component. Hammurabi is still objectively given (not elected), which is symbolized by the mental function of Marduk. There exists a certain spatiality through the hieratic ordering,

but the perspective is illusory, because Hammurabi's mental function vis-a-vis the subjects may be substituted for a culturally passive function vis-a-vis the god. This may be tested by inserting a comma after "obey", making "Hammurabi" the addressee.

The Revolt of Passive Voice

Some centuries after the reign of Hammurabi, human nature was still divided into two functional parts, an executive part called god and an obeying part called man. But with king Tukulti Ninurta I a dramatic change took place (about 1230 B.C.). In the altar-scenes depicting the king no god is present, the throne is empty. Cuneiform documents relate how the Babylonian gods get angry at the king because of his inattentiveness and leave the cities and their inhabitants without any divine leadership. This cultural and mental change may indicate that bicamerality now is beginning to break down and consciousness beginning to break through. If one keeps to the conception of perspective or spatiality as a mark of consciousness, there is in Figure 4, except for the empty throne, other marks of this kind. The depiction presents Tukulti in two shapes, the first when he is approaching the throne, the second when he is kneeling. The picture might be an attempt to illustrate an abstraction: the mentality of a god is absent and the cultural control

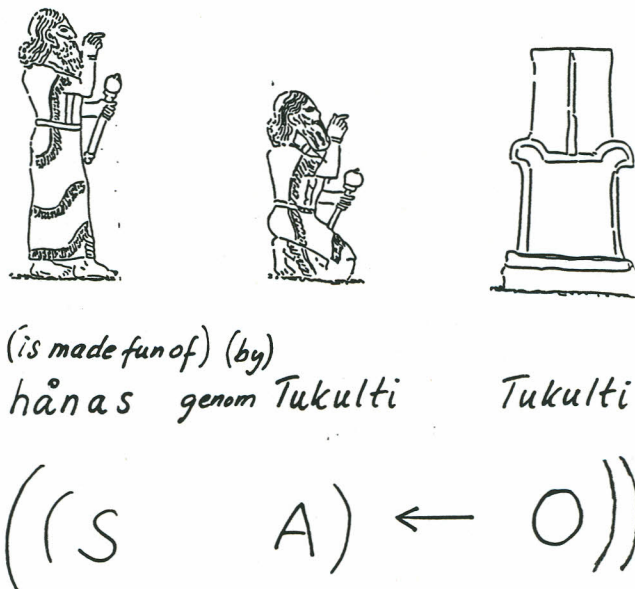


Figure 4. Object governing: Emergence of causal agent

shows a lack of respect. The linguistic expression is only half-way to complete syntax, interpreted such that the objective Tukulti makes fun of his passivity by the active Tukulti. By that he has made himself an instrumental agent (A) and may be said to have a perspective on his own function. Thus far this is the beginning of a turning inward of the point of reference. However, Tukulti and his contemporaries are object-governed and do not have the ability to take the consequences of his revolt. The inner parenthesis remains, in spite of its spatiality, an expression of the controlling powers. The agent should be conceived as merely causal.

In traditional syntactic analysis of the passive sentence, this double function is established, underlining that the point of reference is still the subject, exposed to forces or powers ("Tukulti is made fun of by Tukulti") outside human control. The mental steering is something external, although not always visible, and possibly because of this intransparency something non-consciously agentive has to be inferred. This agent functions as an instrument for the objectively given and can be traced back to the period of social upheavals, which followed when the gods no longer in concrete shapes of kings ruled the societies. Through higher stress tolerance the voices were heard less often. Instead one listened to the physiological reactions on one's effort to bring about hallucinations, for example palpitation of the heart and quick breathing. The more seldom the gods' voices were heard, the more often the physiological reactions were taken as divine functions. The internalization of the point of reference may be illustrated with a couple of examples from the *Iliad* (Jaynes, 1976, pp. 261-265).

Originally "thumos" designated an externally perceived activity. It is very frequent in the *Iliad*, especially in war scenes, where it is narrated how some warrior causes someone else's "thumos" to decrease. The internalized sense is associated with a stress function, which means that the inner feelings of, for example, the rise of the blood pressure and the contraction of muscles are taken for the activity itself. Another important word in the *Iliad* is "phrenes", which designated the lungs. By the internalization it is associated with changes in the breathing, which is also dependent on external stimulation. From this the conception emanates that "phrenes" register events and are containers for storing information. For a long time it was believed that the place of the

"phrenes" (roughly the diaphragm) was the place of life. It moved later on to the place of the activity of the "thumos", that is, "kardie" or "kardie". Thus, the conception of the heart as the centre of life is hard to kill.

Emotional Control

By the discovery of the inner room the condition for cultural development was created, namely the forming of analogies. That physiology is something basic is evident from examples such as "the pulse of a city", "plants breath" and "time flies". By understanding the physiological reactions within themselves the individuals got an instrument for understanding others and for behaving against others "as if" they were them. One could say that the primary carriers of culture in language are "I" and "you", since they are the prerequisite of the forming of pairs and the development of will to live. The poetry of Sapho gives evidence to a time of divergence in which names of inner organs stand for certain feelings, which announce an amalgamation of "soma" and "psyche". The I-spatialization is basic for the narrative as a form of cultural memory. That memory is strongly physiologically connected is proved by the metre, the rhythmic scansion of poetry, ballads, and broadsheets, all of which more or less suggestively imitate the heart rhythm.

Duality is another term for I-analogy. The mentality is namely expressed in that the own person is projected on to the you-referent. Because I and you are equipped in a similar way, and obey or suffer the same feelings, we are both subjects. Thus, pity and sympathy emerge through the conception of an analog I. For example, it is the meaning of the suffering subject that has become the object of psychoanalysis. Consequently, the object of study is treated as subject and becomes subject to the psychoanalyst's understanding through his knowing of himself. This syntax leads back to Hammurabi, since some revolt of the passive has not been completed. It would have demanded that the subject be made responsible to its own actions. But this is not the case. The subject is rather exposed to or involved in events for which it cannot be demanded responsibility.

The linguistic analysis does not activate the subject mentally either. Figure 5 presents a model for internal control. The alternative when the same phenomenon is analyzed on the basis of consequence thinking is given in Figure 6. The verbal expression denotes duality. The connection

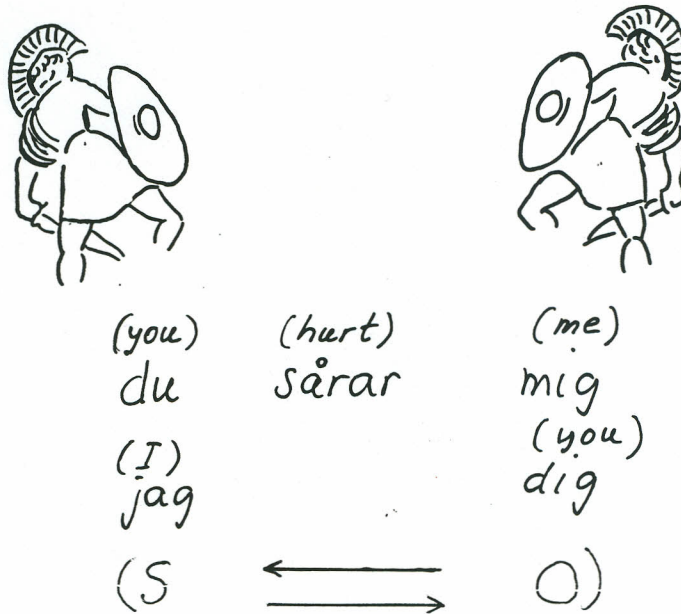


Figure 5. Object governing: Duality as projection of the subject

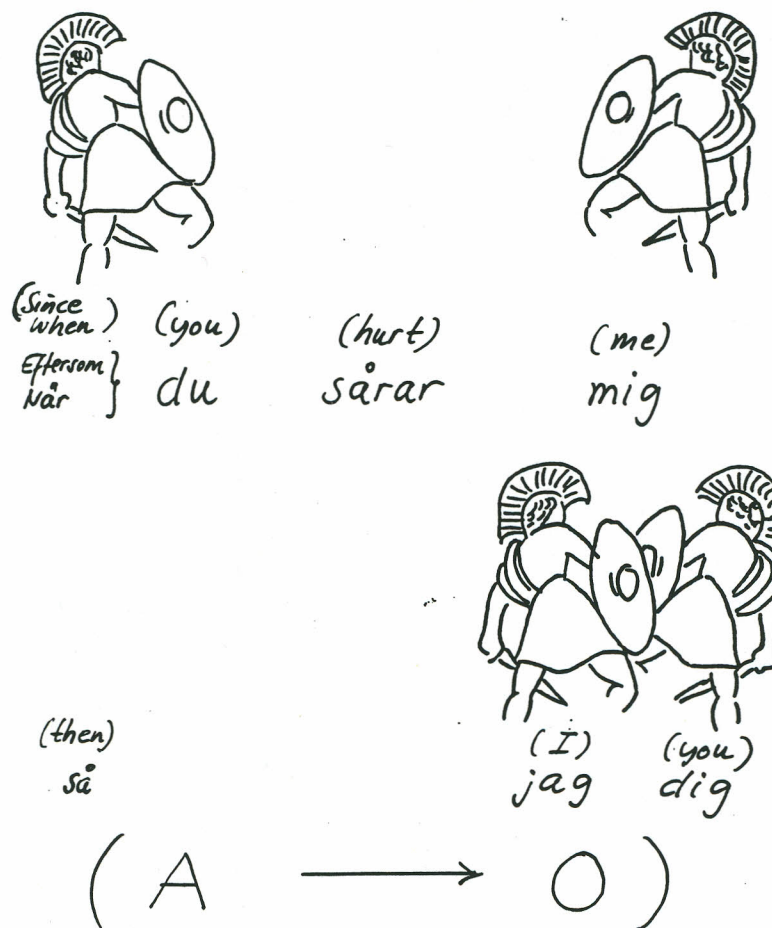


Figure 6. Agent governing: Emergence of intentionality

is usually indicated as causal to that extent that an event is inexorably linked to another event, which is typical of the mentality of narration in epic works such as the Iliad. The perspective is nothing else than a projection of the subject's feelings onto the object so that subject and object amalgamate. It is not a matter of paradigm shift. The example expresses time as basic for a conception of justice. The first relation is here seen as preceding in time and the encounter "I-you" as the consequence, which had been the logical consequence of the passive revolt: You who began are responsible for what follows. By this the relation is provided with a morality component. In Scandinavian cultural tradition, the inverted word order expresses the mentality distinguishing between the responsible and the offended, where the offended uses his right to retaliation without being held responsible for it. The translation into English syntax ("... then I hurt you") gives the opportunity to at least speculate over the meaning of the syntactic difference. This asymmetrical relation is denoted by the fact that steering and control are separated. The symbol A indicates the responsible agent which is the steering component, unlike the agent Tukulti which is unexplainable in its culture.

The Side-Track of Logic. The revolt initiated by Tukulti did not accelerate only because the gods disappeared into the clouds. Oracles and interpreters of signs were engaged to read the will of the gods. But it became more and more common that the mediums carried over diverging messages, which had to be conceived as quarrels among the gods. Did language belong to the gods or the humans? The Greek philosophers were the first to realize that human language tells about man himself but could not use this knowledge to the advantage of humans. In their belief in something above the clouds, something pure, universal and impersonal, they took the task of liberating language from subjectivity and re-creating the objective point of steering and control. They made statements about language as a cultural object and by doing so they equated culture with mentality, that is, the mentality of predicate logic. It namely tries to show that a category of a phenomenon predicts the same mentality as the class it belongs to. Thus, with the logician as steering component the hypnotic relation between Hammurabi and Marduk is given the force of a mental kind of natural law.

The Mental Perspective

As from about 500 B.C. one may speak of a mentality similar to that of today. With Solon of Athens a new mental age emerges. He represented a type of leader who did not need the voices in his daily activities but depended on his own judgements. This "de-divination" of the steering function required mental strength, which could not be generally accepted without the insight of the people. Therefore, the cultural and mental changes, manifested as from this period, must be regarded as revolutionary. The achievement lies in the transition from the analogic way of thinking to a metaphorical. Socrates was the one who, at the cultural level, tried to get the people of Athens realize their possibilities to know something by means of their own intellectual ability and to leave the causal, fatal events behind. The insight, that knowing emanates from ourselves and that we find ourselves in a metaphysical relationship to our existence has been both dilemma and challenge since then.

The power of action called forth by the internalization is no longer governed by "thumos" or "kardie" but by "noos (nous)", which in poetry written by Solon, has the function of a mental phenomenon quite similar to concepts like consciousness, conscience and morality. With the devise "know thyself" it may be illustrated how the old paradigm changes. Since Socrates was the argumentative agent of this devise, although not its source, he will stand for it in the example given in Figure 7. What this example expresses is the true paradigm shift. You

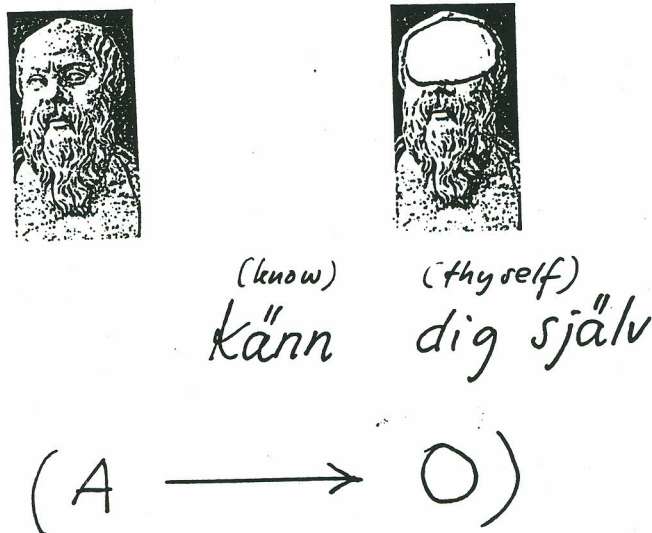


Figure 7. Agent governing: Identity between agent and object

are your own point of steering and control. Thus, Agent (mentality) and Object (culture) reside in the same organism, a new way of thinking. Tukulti did not reach the shift, since his agent, by its causal function, is analog with the objectively given. The new agent takes responsibility for both action and thought. (The reader should observe that the notion action in speaking about activity before the shift is not correct; behaviour or event would fit better.) The acting Socrates objectifies himself by perspectivating his own mentality (introspection). Another observation with respect to the cultural connection of mentality is bound to the sentence type. The linguistic term is imperative. It is worth remembering that western grammar was born during this period in Greece (Aristotle). To be sure, commands and imperatives are materially analog but the imperative has also a sense of morality (cf. Kant), which requires a responsible (moral) agent and no subject. The action of the imperative is the mental conduct that the agent takes. This conduct means that the perspective becomes infinite and restricted only by the individual's own space of thought. The model further shows that the one who acts is the one who initiates the act. This paradigmatic fact has far-reaching consequences for the operationalization of the model.

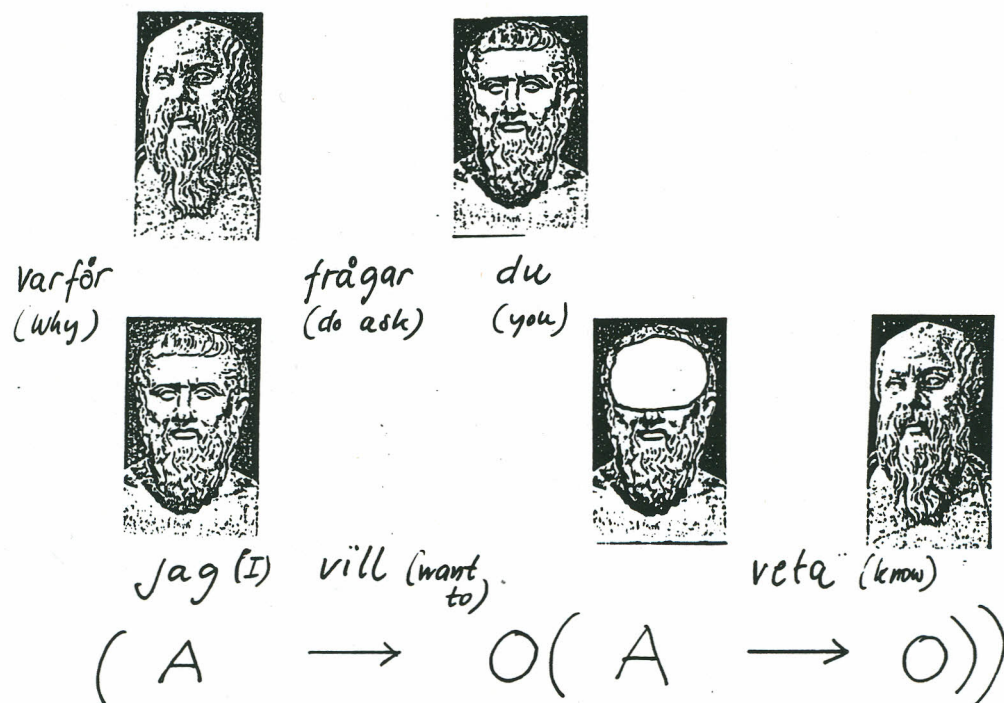


Figure 8. Agent governing: The question as indicator of consciousness

Socrates' method of posing questions was to get out that he was the knower. The conclusion to be drawn is not the usual one, that a question may be divided into a number of statements, but rather that the question contains the statement, in the paradigmatic sense. This is illustrated in Figure 8. If Socrates asks Plato "Why do you ask?" then he puts a perspective on their relationship. To him, Plato is the mental object in this moment, the non-knower, who, however, in a time perspective and in dialogue with Socrates, becomes a knower of equal dignity. The opportunity is there a priori. Inherent in Socrates' metaphorical objectification of Plato is his conception of the other person's introspection. Plato's "con-knowing" (knowing together, consciousness) emerges in the dialectic process, provided that he wants to know. His answer, for example "I want to know" may therefore be put into the question scheme to illustrate partly his own responsibility in the form of mental preparedness, partly the ignorance he wants to treat.

It should have been evident from this illustration that Socrates has the answer. But to observe his cultural actions in the market-places of Athens is not enough in order for Plato to get to know what Socrates knows (the right parenthesis). He must get at his mentality, that is, get at what makes Socrates put the questions the way he does (the left parenthesis). The argumentation which develops in the dialogue defines knowing and con-knowing through the mental cooperation process. Thus, the two texts of the dialogue are the foundation of an independent text. The question is the formal steering component of the concept of text.

Based on what is known about the culture and mentality of Ancient Greece their knowledge and consciousness may be regarded as fairly bound to specific persons. Today this is termed cult. To be sure, knowledge is specialized today, but at the same time the public consciousness has become broader as well as deeper. Taking Socrates as a representative of knowing and Plato of con-knowing the writings of Plato would be the origin of a helix of consciousness on whose oscillation Western Civilization is still dependent. Every text (consciousness) is a transformed knowing. What in modern text analytic discussion is called intertextuality seems to refer to transfer. The problem for modern text analysis is to develop a method for control of de-personalized consciousness. It is in this context that the metaphorical paradigm shows its power.

The Textual Agent

Text may be formally defined as the amalgamation of question and answer. It should be regarded as a transformation of a dialogue situation whose exact cultural anchorage in time and space is not transparent. The transformative step from speech act to text implies that mentality is perspectivated. Therefore, one must not expect that other persons will show up at Socrates' and Plato's places in the question scheme to mark the origin of all arguments. The significant property of a text is that it operates even though the empirical agents are unknown or maybe because of it. Such a way of operating is only possible because all that man creates and gives name to becomes metaphorical agents for himself. If Plato answers "Your ideas interest me" or "The questioning makes me strong", then the "ideas" are agents for Socrates and the "questioning" for Plato. Similarly the agents are metaphorical in relation to any text producer. These agents will be termed "textual agents". It is not possible to know in advance which they are, since the function of defining them lies in the text producer at the moment of creation. This action manifests itself in the verb. The function of the metaphorical verb is to spatialize the agent and his mental object. The textual agent manifests itself only in the statement, that is, the answer in the text format. In relation to the empirical agent the statement represents him indirectly, which means that the statement as form represents consciousness. The direct representation of the agent takes place in the imperative sentence, the question (starting with Wh-element or verb), and the passive, all three representing knowing. For an operationalization of the model it has been proved important to treat the textual agents as variables and the textually non-present agent as an invariable. The empirical agent's (knowing) perspective differs from that of the textual agents (consciousness) in the sense that it picks up something deeply systemic, which steers the text at a metaphysical level. But it is its cooperation with the physical level that gives meaning to the text.

Kant had probably no idea that his metaphysics would be operationalized on text (Bierschenk & Bierschenk, 1986 a, b). His statement: "I know only the stars above me and the ground below me" implies that he decides upon his existential conduct with reference to a coordinate sys-

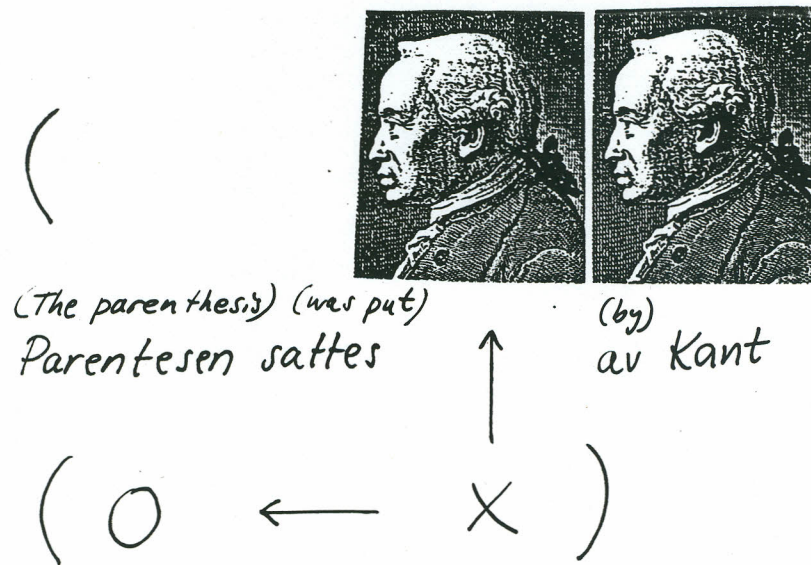


Figure 9. Agent governing: Morality as steering and control function

tem. This means nothing else but a determination of the outer parenthesis, symbolizing the possibilities and limitations existing between personal responsibility and realism. The model may be illustrated as in Figure 9. The example shows that much has happened since Tukulti's revolt of the passive voice. The relation between the physical Kant and his mental conduct is transcendental. He himself is the foundation of his actions and by way of determining the point of reference at himself he controls both the objective (orientating) dimension and the acting (intentional) coordinatively. Modern man is characterized by actions which do not always coincide with inner conceptions, depending on systemic restrictions. In a text, the inner dimension is uncovered such that people give a perspective on their own actions. Perspectivation refers to a mental spatialization, whose consequences are discovered through the tension between the left and right parenthesis. Through the evolvement of the metaphorical paradigm it seems natural that the objective dimension of the text and the ground upon which it rests shows a spatial scope, dependent on which textual agents that control it. The cooperation between A, control function, and O may at the direct observable level look accidental, if one expects a text to be analytical. But text is synthetic, and a synthesis is free from the variable level (Hartman, 1967). For an analysis of synthesis, however, there is a need for control of the synthetic steering mechanism the way it is shown in Figure 10.

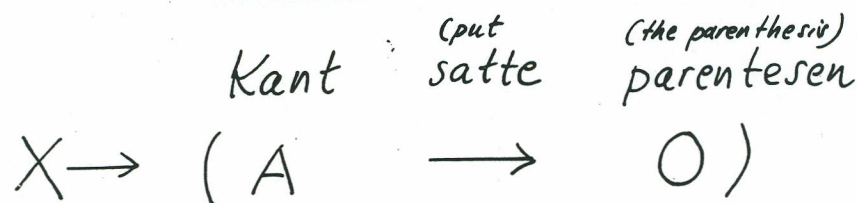


Figure 10. Operationalization of the agent function

This steering mechanism is not conscious, but through the analysis of the culturally based dimension of the text it emerges. It operates from a text producer, but its result (emergence) is not bound to a person. It is more suitable to conceive of the text as a representation or reproduction of a conduct which may be the expression of a group spirit, enterprising spirit or spirit of the time. In that several persons may take the same textual standpoint, they may also have the same perspective. By recognizing Kant's conception of something superordinated, which may just as well be called morality, as steering a text, the variable of this superordinate (X) may be used at the text processing. With this new limit of consciousness a measuring instrument has been created for studying phenomena of our age, such as differences in mentality and their changes within culturally similar environments (Bierschenk & Bierschenk, 1987, pp. 15, 29).

Perspective Text Analysis

Every language analysis founded on the assumption that language is something objectively given fails to say something objective about what a text brings about. Inbuilt in every object of language there is an intention, an individually bound component, which an analysis has to encompass in order to be called objective.

As has been put forward, the intentional component is carried by syntax and an intention is characterized by a simultaneous expression of agent, action and object. The central component of this model is the Agent, which differs from the linguistic subject in that it is metaphorical, that is, perspective producing. This property gets its function in text analysis such that the component as textually, physically, present (textual agent) represents a text producer, whereas as textually absent, or metaphysically present, it represents a conduct. This double function of the agent seems to be tied to two interacting linguistic main forms of representing consciousness, namely the question and the statement (answer). The criterion for distinguishing them is that the question lacks a perspective-keeping textual element before the verb. (The wh-element has only an organizational function.)

The Agent is the steering component for text analysis when the text is conceived as intentional (mentally conditioned) action. The question is regarded as indicator of mentality and not as cultural action the way it does in discourse context, for example. The problem of culturally defined language analyses is that form and function are confused, which has as its consequence that a text is not analyzed independent of situational conditions. This necessitates interpretation during processing and by that it is not possible to uphold any objectivity. Taking the question form to define a text such that it marks a placeholder for a physically absent agent marks a limit separated from the physical representation of the text, an outer parenthesis objectifying the text from the perspective steering its production. A tangible example of the consequences of this is that all linguistic sentences expressed in the form of question, imperative or passive transforms the grammatical subject, which is culturally determined, into an object. This is a mental change which was possible thanks to the metaphorical paradigm shift. Culture is something that changes very slowly while mentality may change rapidly.

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Author Notes

The illustrations in the Figures 2, 3, and 4 are based on the pictures presented in Jaynes (1976). The drawings of Figures 5 and 6 are stylized with reference to Yngve Svalander's illustrations of the second edition of Eva Hede'n, "Grekiska sagor", Almqvist & Wiksell, 1956. The illustrations in Figures 7, 8, 9, and 10 are photos taken from Karl Holzamer, "Philosophie. Einfuehrung in die Welt des Denkens", C. Bertelsmann Verlag, 1961. The article was presented at the 1th European Congress of Psychology, Symposium on Ecological Psychology: Human Response to Environmental Change, Amsterdam, July 2-7, 1989.